Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [Y] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No scientific significance
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [ ] Major revision [Y] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The Authors applied a Machine Learning model to evaluate pre-transplant factors that may predict post-operative, in-hospital major cardiovascular events. They collected 575 LT recipients who underwent surgery between 2001 and 2011, using 83 pre-transplant variables. Then, they built a ML algorithm that showed a good performance for predicting major cardiovascular events (the AUROC was 0.89). Factors associated with post-operative major cardiovascular events were beta blockers, blood type, results of non-invasive stress tests. The aim of this paper is of interest. Nonetheless, the ML model usually applies on very large databases with huge amounts of data. In this paper, the number of patients included in reliatively low (575), therefore in my opinion the Authors should explain why they decided to use ML approach instead of a standard statistical analysis. Further, the Authors should, in my opinion, clarify if the definition of MACE (a composite outcome including stroke, new-onset heart failure, severe arrhythmia, and nonfatal myocardial infarction) has been previously applied in the transplant setting or not. Indeed, it is not clear if fatal myocardial infarction has been included or not, or what is the definition of severe arrhythmia, or the relationship between stroke and

pre-transplant cardiac assessment. Finally, the Introduction section discusses about the unreliability of non-invasive stress tests before transplantation: according to this study, alteration of myocardial perfusion scintigraphy and negative stress test have been included in the proposed algorithm. Additionally, it should be cleared if all patients underwent, before transplant, the same pre-operative cardiological assessment. These points, in my opinion, are very impactful, in a future attempt of external validation. Minor issues > why patients transplanted between 2001 and 2011 were collected? > why the XGBoost model was used instead of other ML models? Regards.